HAZARDOUS WASTE

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Shoptalk

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Proposed Strategy for Persistent, Bioaccumulative Toxins (PBTs)

What are Persistent, Bioaccumulative Toxins?

Persistent, bioaccumulative toxins (PBTs) are substances that can build up to levels that might be harmful to human and environmental health. These contaminants travel long distances in the atmosphere and move readily from air and water to land. "Persistent" means that these substances do not break down easily, and "bioaccumulative" means a pollutant is not broken down in organisms, but is passed up the food chain and becomes concentrated in higher predators.

Ecology is concerned about historical PBT problems, such as the pesticide DDT and PCBs (polychlorinated biphenyls), and also about PBTs currently produced or released to the environment. Current sources of PBTs include certain banned pesticides, various industry, government and consumer activities, such as incinerators, trash burning/burn barrels, diesel fuel combustion, wood-burning stoves, fireplaces, wood-fired boilers, and improper disposal of fluorescent lights and household-mercury thermometers.

PBTs are associated with adverse health effects, including reproductive and nervous system effects, developmental problems, cancer, and genetic impacts. A developing fetus or young child may be at particular risk where critical organs, such as the central nervous system, are still developing. Individuals who eat large amounts of fish from waters contaminated with PBTs may be at higher risk for adverse effects.

What is Ecology's PBT Strategy?

Ecology submitted a proposed strategy for addressing PBT concerns to the Washington State Legislature. The Legislature was requested to fund implementation of this strategy as part of the Governor's proposed budget for the 2001-03 biennium. (NOTE: The outcome of this request is uncertain as this issue goes to press.) The PBT strategy proposes to continually reduce and, where possible, eliminate releases of PBTs to the state's air, land, and water.

Ecology proposes a public education program to provide information about PBTs, public health, and the environment.

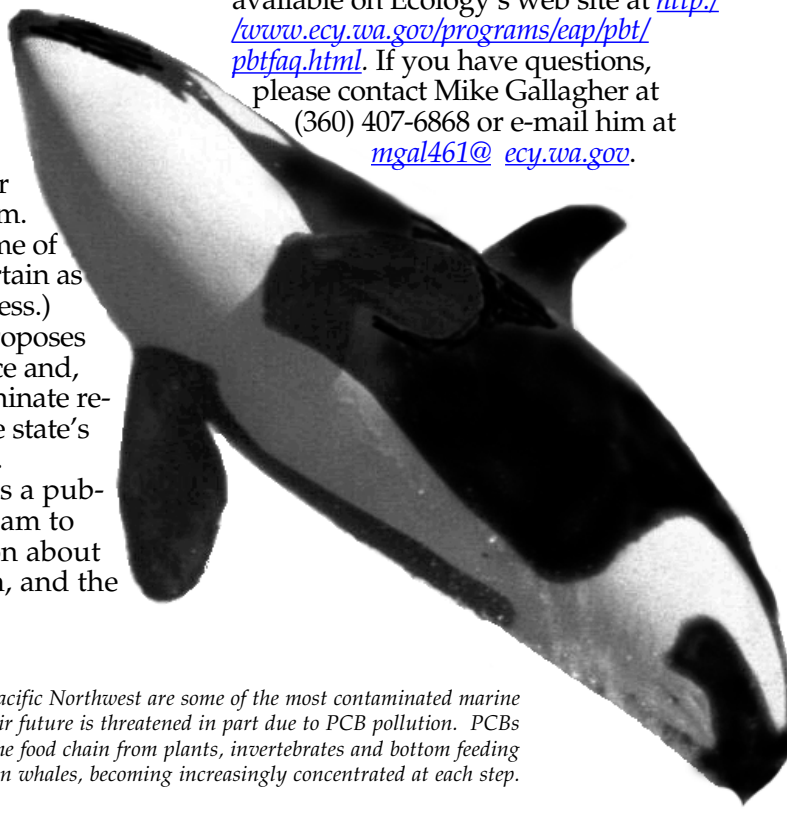
Another proposal is a program to monitor past, current, and future PBT trends in Washington's environment. A key goal would be to identify pollution prevention opportunities with environmental and economic benefits. Ecology will promote cleaner technologies and seek alternatives for products or processes generating PBTs.

The decision to develop and implement this strategy is not one that Ecology should or can make on its own. Reducing and eliminating PBTs will involve many interested parties and cover numerous economic and public policy concerns.

Ecology hopes this strategy will result in a statewide commitment to continually reduce and, where possible, eliminate PBT releases in Washington. Additional information is available on Ecology's web site at http://www.ecy.wa.gov/programs/eap/pbt/pbtfaq.html. If you have questions, please contact Mike Gallagher at (360) 407-6868 or e-mail him at mgal461@ ecy.wa.gov.

PBT Strategy Proposal

The proposed strategy identifies nine PBTs as a "Starter List" of PBT chemicals for Washington State. The first nine PBT chemicals include: Banned Pesticides: aldrin/dieldrin, chlordane, DDT/DDD/DDE, toxaphene; By Products: benzo(a)pyrene, dioxins and furans; Other: hexachlorobenzene, mercury, and PCBs. Additional chemicals are being screened along with those on the "starter list."



Orca whales that live in the Pacific Northwest are some of the most contaminated marine mammals in the world and their future is threatened in part due to PCB pollution. PCBs work their way through the food chain from plants, invertebrates and bottom feeding fish, salmon, and then whales, becoming increasingly concentrated at each step.

Apply for 2001 Governor's Pollution Prevention Award

Your business, organization, or government facility could be one of several winners selected for the Governor's Award for Pollution Prevention and Sustainable Practices in 2001.

This prestigious award recognizes achievement in pollution prevention, which means reducing hazardous emissions or wastes before they are generated. The award also recognizes sustainable practices, providing a high quality of life for present and future generations without exceeding the environment's ability to provide resources, recycle wastes, and support a rich diversity of life.

The Governor's Award will spotlight waste reduction, toxics reduction, and resource conservation. Facilities that engage in any of the following sustainable practices are encouraged to apply:

- Reducing the generation of solid and/or hazardous waste
- Reducing emissions to air/water
- Product stewardship
- Reducing use of toxic materials
- Eliminating persistent, bioaccumulative toxins (PBTs)
- Increasing the use of renewable and recycled materials
- Reducing energy use or using renewable energy sources
- Reducing water use

Nominations for the ninth annual Governor's Award will be accepted until June 8, 2001. Award winners will be selected by a panel of previous winners, pollution prevention experts, and representatives from labor and environmental groups. The Governor will present the awards at a ceremony in September 2001.

The Governor's Award for Pollution Prevention and Sustainable Practices web page: *www .ecy.wa.gov /programs/hwtr/sustainabil ity/Resources/gov_awards.htm* includes an on-line nomination form, descriptions of former winners and links to more information on sustainability.

Waste Management Facilities in Washington

You pay a lot of money to your waste management company for handling your hazardous waste safely and legally. Are you confident that they will do it right?

Ecology is concerned about the long-term viability of waste management companies. In 1999, one of the larger waste management facilities in the state, CleanCare Corporation in Tacoma, shut down operations and left large volumes of waste on-site. The amount of money the company was required to set aside for closing and cleaning up was much less than the total cost required to safely and legally remove and dispose of all wastes. This situation revealed a gap between what state and federal hazardous waste programs require TSDs to set aside and what it actually costs to shut down a site. For CleanCare, over $4 million was spent from EPA Superfund. Not only did some customers of CleanCare have to pay twice for waste disposal, they may be liable for overall site clean-up under state and federal laws.

The solutions are not as simple as they may seem. Ecology is asking the State Legislature to fund an effort to work with waste management companies and major customers, along with local, state and federal government agencies to identify solutions and write draft laws or rules. The focus of the project would be to examine how TSDs are regulated and how to ensure that they have enough money set aside for closing and cleaning up their sites. If funding is approved, this program will begin in July 2001 and end by December 2002. Contact Jim Sachet at (360) 407-6126 or e-mail him at *jsac461 @ecy.wa.gov* for more information.

This is the first of several articles on waste management facilities. Look for future articles about waste management issues, and how to get additional information about waste services contractors.

There are 21 facilities in Washington that accept wastes from other businesses for treatment, storage, fuel-blending and recycling. Another 6 facilities handle wastes only from their own operations. Finally, there are numerous waste management companies that accept wastes from businesses in Washington, but transport them out of state for processing. For a directory of waste management companies, contact Dave Zink at 407-6752 or *dzin461 @ecy.wa.gov*.

Sustainable Building Toolbox

The Department of Ecology's Sustainable Building Toolbox web page at *www.ecy.wa.gov/programs/swfa/cdl/index.html* provides easy access to information and resources on sustainable design and construction.

"Sustainable building" and "green building" are terms used to describe designing, constructing and operating buildings and landscapes to incorporate energy efficiency, water conservation, waste minimization, pollution prevention, resource-efficient materials, and indoor environmental quality in all phases of a building's life.

The Sustainable Building Tool Box helps you locate organizations, educational materials, Internet links, on-line discussion groups, and funding opportunities for incorporating sustainable strategies into your next building project. You will find information about building design, site work, energy, building materials, water issues and waste management.

Learn how sustainable building can benefit the environment — and your bottom line.

Governor's Pollution Prevention Award Winners for 2000

Sustainable Practices Benefit the Environment and People

As a result of their success in reducing waste and improving their communities, RE Sources and Habitat-Spokane and the Builders Surplus Store were honored with the Governor's Award for Achievement in Pollution Prevention in September of 2000. These organizations use sustainable practices that promote re-use of building materials to prevent waste, and conserve natural resources, while contributing to the welfare of people in their communities.

RE Sources/ The RE Stores

RE Sources is a non-profit environmental education organization. Its activities include operating the RE Store, with locations in Bellingham and Seattle. Each branch of the RE Store accepts "used but usable" building materials from the public, such as discarded doors and cabinets from remodel projects and bleachers and flooring from schools. Through the RE Store, more than 1.5 million pounds of materials are diverted from untimely disposal each year.

Proceeds from the two RE Stores support the mission of RE Sources to offer education to the public on local environmental issues and provide opportunities for active citizen involvement. RE Sources works with county and state government on environmental education programs for schools, businesses and the community. Their successes include:

- School-based recycling and air quality education programs
- Business and community education programs about pollution prevention through the "Whatcom Watersheds Project"
- The North Sound BayKeeper and "Whatcom Waters" programs which have involved citizens in the clean-up of Bellingham Bay
- Promotion of increased pipeline safety.

RE Sources For Sustainable Communities

Habitat - Spokane

This organization helps to prevent usable building materials from being disposed, and redirects the resources to building homes for low-income families. The Builders Surplus Store has succeeded in their goals to:

- Reduce the amount of building materials in the waste stream,
- Provide financial support for Habitat for Humanity - Spokane, and
- Provide affordable building materials to low-income families in the community.

Habitat-Spokane and The Builders Surplus Store helped to reduce waste, promote the local economy, and improve the community.

The Habitat-Spokane Builders Surplus Store takes damaged or surplus building materials, which might otherwise end up in a landfill or incinerator, and makes those materials available for low-income families to use for building or improving their homes. Working with two employees and fifty volunteers, they receive donated materials to construct "Habitat for Humanity" homes or sell to people in the community at greatly reduced prices, providing financial support for Habitat-Spokane. The building materials diverted from disposal amounts to an estimated 411 homes per year!

Evaluating Environmental Liability Costs

The use of hazardous substances and the generation of hazardous waste is a financial liability to your company. It is important to take this liability into account when making decisions about implementing new pollution prevention opportunities. You can rate your potential environmental liability by using a qualitative risk scale as described in Ecology's *Pollution Prevention Planning Guidance Manual*, Appendix III, Pub #91-2.

The World Resources Institute (WRI) has released a new method of quantitatively assessing a company's prospective financial exposure to environmental risk. The method is described in the report, *"Pure Profit: The Financial Implications of Environmental Performance."* available at *http://www.wri.org/capmarkets/pureprofit.html.*

The report shows how to measure environmental risk using six basic steps.

Applying the technique can make it easier to include liability costs in the total cost assessment of a project. Start by identifying sources of liability and keeping records of their occurrence. This technique helps to reveal the "real costs" of using hazardous materials or generating hazardous wastes. And of course, pollution prevention can lower these liabilities and costs. For more information about "hidden" costs to consider, refer to the Ecology publication, *Total Cost Assessment*, #00-04-008 available at http://www.ecy.wa.gov/pubs/0004008.pdf Or call your regional Ecology office for free business assistance.

Questions and Answers:

Q What are PCBs?

A PCBs (polychlorinated biphenyls) include more than 200 chemical compounds. PCBs are now identified as persistent bioaccumulative toxic substances (PBTs). Refer to the article on page 1 of this issue for more information on PBTs.

Q What types of waste contain PCBs?

A PCBs are in electrical, heat transfer, and hydraulic equipment. They are also in hundreds of industrial and commercial materials including paints, plastics, building products, appliances, and pesticides.

PCBs cannot be identified by sight. PCBs were manufactured between 1929 and 1977, so the age of a waste is a clue. New PCB manufacture was prohibited in 1977 but most PCB equipment was allowed to remain in use for the rest of its useful economic life. So, due to increasing age and liability concerns older PCB equipment is now being replaced.

Q Who should I call for information about PCB Regulations?

A Start with the Environmental Protection Agency. EPA regulates most PCB wastes under 40 CFR Part 761, which was extensively revised in 1998. Call Dan Duncan at (206) 553-6693 for help. Note the management options if your waste is regulated.

Next call the Department of Ecology. Ecology's Hazardous Waste and Toxics Reduction Program regulates some PCBs under Chapter 173-303 WAC. Call your Ecology regional office for assistance.

Note:
There are some differences between State and Federal PCB Regulations, for example:

- Ecology doesn't regulate drained transfomers, capacitors, or bushings, however EPA does.
- Ecology regulates certain PCB wastes below 50 ppm, however EPA generally doesn't.

Choose a managment option that does not violate either agency's requirements.

Department of Ecology

Remember, your business is liable for all hazardous wastes generated. If you are uncertain about your responsibilities as a hazardous waste generator, call your nearest Ecology office and ask for a hazardous waste specialist. For information on reducing or recycling hazardous waste, ask for the toxics reduction staff, also at the following numbers:

Bellevue: (425) 649-7000
Lacey: (360) 407-6300
Yakima: (509) 575-2490
Spokane: (509) 456-2926

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Shoptalk is produced quarterly by the Hazardous Waste and Toxics Reduction Program, Washington State Department of Ecology
Editor: *Joanne Phillipson (360) 407-6740*
E-mail address: joph461@ecy.wa.gov
Production Team: *Cathy Bouge, Joan Morris*
Technical Editor: *Chipper Hervieux*
Contributors: *Michael Gallagher, Kathleen Kaynor, Judy Kennedy, Joanne Phillipson, Jim Sachet, and Stacie Singleton*
Distribution/Mailing List: Visit *Shoptalk* online at *http://www.ecy.wa.gov/programs/hwtr/shoptalkonline* or to subscribe, e-mail Cathy Bouge at *cbou461@ecy.wa.gov*

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Washington State Department of Ecology
Hazardous Waste and Toxics Reduction Program
P.O. Box 47600
Olympia, WA 98504-7600

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